National Weather Service
Storm Data and Unusual Weather Phenomena

September 2000

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
WISCONSIN, Southeast									
Sauk County									
3 NW La Valle	**01**	**1330CST**			**0**	**0**			**Hail (1.00)**
Sauk County									
5 W Lake Delton	**01**	**1355CST**			**0**	**0**			**Hail (0.75)**
Marquette County									
3 W Endeavor	**01**	**1500CST**			**0**	**0**	**1K**		**Thunderstorm Wind**
Columbia County									
Poynette to Arlington	**01**	**1545CST 1548CST**			**0**	**0**			**Hail (0.75)**

Two clusters of severe thunderstorms moved east/southeast across south-central Wisconsin during the mid to late afternoon hours. Damaging straight-line winds downed large trees near Endeavor (Marquette Co.), and produced large hail elsewhere in Sauk and Columbia Counties. The second, and later, cluster of storms transformed into a single line about 10 to 15 miles wide as it moved through eastern Sauk, all of Columbia, and northern Dane County. As it propagated and developed to the southeast, cloud base rotation was noted by several spotters in southern Columbia County. Cloud-base rotation was also noted in an isolated storm over northern Dane County. However, the surface outflow coupled with a west-east orientated cold front which was sliding south. This frontal boundary pushed 10 miles south of the main updraft tower, thus robbing the storm of low-level vorticity needed to spin up a vortex at ground level. Mesocylcones were observed on the Milwaukee/Sullivan WSR-88D Doppler radar.

Marquette County									
Germania	**02**	**0250CST**			**0**	**0**			**Hail (0.75)**
Fond Du Lac County									
Fond Du Lac	**02**	**0400CST**			**0**	**0**	**75K**		**Lightning**

An isolated severe thunderstorm pulsed up over Marquette County and produced large hail. Elsewhere, a cluster of thunderstorms moved through the city of Fond du Lac and produced lightning strikes. One lightning bolt struck the communications tower on the Fond du Lac courthouse. The tower was damaged and some bricks on the side of the building were knocked loose. Several radio receivers, phone lines for the 911 Center, and a radar display system were also damaged.

WIZ063-066	**Dane - Milwaukee**								
	11	**0000CST 2359CST**			**0**	**0**			**Record Rainfall**
Racine County									
Union Grove to Racine	**11**	**1045CST 1230CST**			**0**	**0**			**Urban/Sml Stream Fld**
Walworth County									
1 W Walworth	**11**	**1230CST**			**0**	**0**	**10K**		**Lightning**
Walworth County									
Whitewater to La Grange	**11**	**1545CST 1555CST**			**0**	**0**	**10K**		**Thunderstorm Wind**
Milwaukee County									
Milwaukee	**11**	**1615CST**			**0**	**0**	**30K**		**Lightning**
Lafayette County									
Belmont to Shullsburg	**11**	**1630CST 1640CST**			**0**	**0**	**20K**		**Hail (1.00)**
Lafayette County									
Lamont	**11**	**1655CST**			**0**	**0**	**2K**		**Thunderstorm Wind**
Green County									
3 W Monroe	**11**	**1710CST**			**0**	**0**			**Funnel Cloud**

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
WISCONSIN, Southeast									
Green County									
Browntown	**11**	**1715CST**			**0**	**0**	**2K**		**Thunderstorm Wind**
Lafayette County									
South Wayne	**11**	**1715CST**			**0**	**0**	**30K**		**Lightning**
Dane County									
Madison to Maple Bluff	**11**	**1725CST 1728CST**			**0**	**0**			**Hail (1.00)**
Green County									
Monticello	**11**	**1730CST**			**0**	**0**	**10K**		**Hail (1.50)**
Dane County									
Oregon	**11**	**1733CST**			**0**	**0**			**Hail (0.75)**
Lafayette County									
7.5 N Argyle	**11**	**1740CST 1930CST**			**0**	**0**	**10K**		**Flash Flood**
Jefferson County									
1 W Jefferson	**11**	**1810CST**			**0**	**0**			**Hail (0.88)**
Dane County									
Madison Truax Arpt	**11**	**1835CST**			**0**	**0**			**Thunderstorm Wind (G64)[M]**
Waukesha County									
Waukesha	**11**	**1840CST**			**0**	**0**	**3K**		**Thunderstorm Wind**
Green County									
Monroe	**11**	**1900CST 2100CST**			**0**	**0**	**100K**		**Flash Flood**
Milwaukee County									
Milwaukee	**11**	**1900CST**			**0**	**0**	**2K**		**Thunderstorm Wind**
Marquette County									
2 N Westfield	**11**	**1915CST**			**0**	**0**	**2K**		**Thunderstorm Wind**
Rock County									
Johnstown	**11**	**1915CST**			**0**	**0**			**Hail (1.00)**
Green County									
Monroe	**11**	**1930CST**			**0**	**0**	**2K**		**Thunderstorm Wind**
Walworth County									
2 N Elkhorn	**11**	**1930CST**			**0**	**0**	**2K**		**Thunderstorm Wind**
Green Lake County									
Princeton	**11**	**1950CST**			**0**	**0**			**Hail (1.00)**
Milwaukee County									
Wauwatosa to Milwaukee	**11**	**2000CST 2300CST**			**0**	**0**	**100K**		**Flash Flood**
Kenosha County									
Kenosha	**11**	**2030CST 2035CST**			**0**	**0**	**10K**		**Hail (1.00)**
Waukesha County									
Waukesha	**11**	**2115CST 2359CST**			**0**	**0**	**50K**		**Flash Flood**

Three rounds of severe thunderstorms affected parts of south-central and southeast Wisconsin on September 11, 2000:

1) The 1st round consisted of a cluster of storms that produced damaging straight-line winds in Walworth County. Several reports of toppled large trees originated from the Whitewater to La Grange area down to the Richmond area

2) The second round started off as a cluster of storms over northeast Iowa which moved into southwest Wisconsin. This cluster transformed into a solid line of storms, some severe, as it moved east through south-central Wisconsin. Eventually this line extended from northern Dane County south to the Illinois border as it moved east. A well-defined outflow boundary/gust front, marked at

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm

WISCONSIN, Southeast

cloud base by a dramatic shelf cloud, developed about 5 to 15 miles out ahead of the line of storms. Peak winds were in the 26 to 44 knot (30 to 50 mph) range in the area behind the surface gust front position, while damaging winds in excess of 50 knots (58 mph) were found near and behind the most intense rainfalls. The storms produced damaging straight-line winds which toppled many trees and a few power lines, large hail stones up to 1.50 inches in diameter, intense lightning strikes, and torrential rainfalls of 2 to 4 inches, which resulted in flooding, flash flooding, or urban/small stream flooding. Interestingly, the downburst winds on the back (west) side of the most intense cells peaked in the 58 to 64 knot range (58 to 74 mph) in isolated spots, one of them being Madison's Truax Field. The peak gust at that location was from the southeast (150 degrees).

Torrential downpours, estimated at 3 to 4 inches within 1 to 2 hours based on WSR-88D Doppler radar, caused a flash flood, and resultant mudslide, a few miles north of Argyle (Lafayette Co.) on Highway 78 just outside of Blanchardville, temporarily closing that road. Similar amounts fell across Green County just to the east. Scattered flash flooding was reported in Green County which resulted in gravel shoulder washouts on some roads, and significant flooding of low-lying roads, basements, and businesses, especially in and around Monroe. Amateur Radio operators (Hams) measured 3.60 inches of rain in Brodhead, and 3.56 inches in New Glarus, both in Green County. As the solid line of storms moved east, it produced additional flash flooding in and around the city of Waukesha (Waukesha Co.). Water depths on roads reached 2 to 4 feet, and gravel shoulder washouts were noted, especially from north of the city to the southwest side. Further east in Milwaukee County, flash flooding stranded numerous motor vehicles, especially around 92nd and Hampton in Milwaukee. Residential home and city park landscaping were damaged by the flood waters. The Menomonee River in Wauwatosa crested 1.71 feet above the 11 foot flood stage at 2130CST. There were reports of 2 to 4 feet water depths on some roads in northern Milwaukee County. A Ham at 82nd and Congress in the city of Milwaukee measured a rainfall of 2.76 inches. Several other mainstream rivers in south-central and southeast Wisconsin rose to bankfull or exceeded flood stage by 1 foot or less.

Besides some large trees toppled by thunderstorm winds in the city of Kenosha (Kenosha Co.), the hail that fell in the city covered the ground white. Lightning struck and killed 14 beef cattle on Meyer Road near the South Wayne village limits (Lafayette Co.). Lightning also struck a residental home just west of the village of Walworth (Walworth Co.), resulting in a fire that damaged the roof and attic. The same thing happened to a city of Milwaukee home on 97th Ave. In Racine County on Interstate-94, the torrential rains reduced visibility to less than 50 yards, forcing motor vehicles to pull to the side of the roac.

Madison (Dane Co.) registered 1.71 inches of rain on the 11th, breaking the old daily precipitation record of 1.57 incheds set in 1879. Likewise, Milwaukee measured 2.96 inches of rain, breaking the old daily precipitation record of 1.73 inches set in 1933.

3) The 3rd round of severe storms affect the counties of Marquette and Green Lake. Isolated, damaging staight-line winds and some large hail were produced by a solid line of thunderstorms which diminished in strength and broke up as they moved into Fond du Lac and Sheboygan counties.

Synoptically, a surface low pressure over Sioux Falls, SD in the early morning hours moved east/northeast to near Green Bay by 2200CST. South winds ahead of the low pressure pulled moist air, with surface dewpoints in the lower 70s, into southern Wisconsin. The unstable air (CAPES 2500 and LI's -6 to -8) and right rear quadrant region of the jet streak led to the pre-cold-frontal thunderstorms during the afternoon hours. A trailing cold front then pushed east during the evening hours reaching a Green Bay to Madison line by 2200CST.

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
Kenosha County									
Kenosha	**22** **23**	**2230CST** **2230CST**			**0**	**0**			**Urban/Sml Stream Fld**
Milwaukee County									
West Allis to Franklin	**22** **23**	**2230CST** **0200CST**			**0**	**0**			**Urban/Sml Stream Fld**
Racine County									
North Cape to Racine	**22** **23**	**2230CST** **2230CST**			**0**	**0**			**Urban/Sml Stream Fld**

Intense rainfalls of 1 to around 2.50 inches resulted in urban and small stream flooding over parts of southeast Wisconsin. Water depths on some low-lying roads reached 6 to 12 inches. Water levels in several small streams briefly exceeded bankfull by a foot or less. Two separate rounds of thunderstrorms were responsible for the flooding. An Amateur Radio operator near State Fair Park in West Allis measured a rainfall of 2.05 inches.